

Appl. No. 10/051,418
Amdt. dated September 24, 2003
Reply to Office action of April 24, 2003

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (canceled)

Claim 2 (Original) An optical connector for use with an electro-optical board, the optical connector comprising:

a right angle interface body having one or more first optical paths and one or more second optical paths, each of the first optical paths corresponding to a respective second optical path, wherein the first optical paths are disposed in a first plane and the one or more second optical paths are disposed in a second plane, the first and second optical planes being substantially at right angles with respect to one another;

a female self-alignment body having a tapered channel substantially aligned with the first plane; and

an anchor body adapted to securely engage an exterior surface of the female self-alignment body and adapted to anchor to a surface of the electro-optical board;

a tapered male self-alignment body sized to fit closely into the tapered channel of the female self-alignment body, and having one or more third optical paths adapted to align with the first optical paths when the tapered male self-alignment body is engaged with the female self-alignment body;

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wherein the third optical paths are adapted for connection to one or more optical fibers
disposed outside the electro-optical board, and

wherein the second optical paths are adapted for connection to optical fibers embedded in
the electro-optical board

.Claim 3-4 (cancelled)

Claim 5 (Original) An electro-optical back plane comprising:

a fiber management system formed of plural optical fibers;

an electrical bus circuit;

a board, wherein the fiber management system and the electrical bus circuit are embedded
inside the board;

plural optical connectors disposed on the board, each of the plural optical connectors
being coupled to one or more of the plural optical fibers of the fiber management system; and

plural electrical connectors disposed on the board, each of the electrical connectors being
electrically connected to the electrical bus circuit;

wherein each of the optical connectors comprises:

a right angle interface body embedded into the board for connection to one or
more fibers of the fiber management system;

an anchor body securely fastened to the surface of the board; and

a female self-alignment body having a tapered channel, wherein the female self-

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alignment body is held by the anchor body so that the tapered channel is in registration
with an upper surface of the right angle interface body.